



# **RETHINKING THE BOTTOM-UP REVIEW: FLAWED ASSUMPTIONS OF FUTURE WARFIGHTING?**

A Monograph  
By  
Lieutenant Colonel Robert L. Mayes  
Infantry



School of Advanced Military Studies  
United States Army Command and General Staff College  
Fort Leavenworth, Kansas

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Lieutenant Colonel Robert L. Mayes

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Approved By:

Richard M. Swain  
Richard M. Swain, Ph.D.

Monograph Director

Gregory Fontenot  
COL Gregory Fontenot, MS, MMAS

Director, School of Advanced  
Military Studies

Philip J. Brookes  
Philip J. Brookes, Ph.D.

Director, Graduate Degree Programs

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## **ABSTRACT**

**RETHINKING THE BOTTOM-UP REVIEW: FLAWED ASSUMPTIONS OF FUTURE WARFIGHTING?** by LTC Robert L. Mayes, USA, 55 pages.

The change in the strategic environment and the emerging priorities within the American society are causing major shifts in the size, structure, and focus of the U.S. Armed Forces for the 21st Century. The results have been a change in our force projection strategy that is based on a study called the Bottom-Up Review. This study, attempts to realign the focus of the U.S. Armed Forces, and do so within the ever increasing budget constraints. Although drastically needed, the Bottom-Up Review recommends shifts in our force projection strategy that appear to be based on faulty assumptions and incomplete analysis of the impacts on future warfighting abilities.

This monograph analyzes the background and significance of force projection and its relationship to the emerging strategy as outlined in the Bottom-Up Review. It reviews history and analyzes some of the key assumptions on which the Bottom-Up Review is based, linking the historical issues with possible flaws in the Bottom-Up Review assumptions.

This monograph concludes there is much work to be done on the underpinnings of changing a force projection strategy. This includes further study of the assumptions on which the Bottom-Up review is based, a clear definition of what our force projection capabilities should be in 2001 and beyond, and recommendations that will reduce near-term issues with our force projection strategy. Should the Department of Defense continue to use the Bottom-Up Review and its flawed assumptions as a base for our future force projection strategy, it may be the nation's future is currently being mortgaged rather than being protected. This study further concludes that the Bottom-Up Review is not a sufficient study from which to base a new force projection strategy.

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## I. -- INTRODUCTION

People have forgotten today what a difficult time we had raising an army, how bitter was the opposition to raising it, how strong was the influence of the Middle West. When we began to get the army in some size in 1941, it almost dissolved and [was] only saved by one vote. I find many intelligent men today that don't recall that at all. Yet, that was a historic, almost a fatal point in our military history of the war.<sup>1</sup>

General George C. Marshall

With these few words, General George C. Marshall captured one of the key essences of 'An American Way of War'. In this passage, Marshall recalls the reluctance and the difficulties encountered as he tried to convince the American people and their political representatives of an emerging global threat. The ability to project force historically has been, and will continue to be, the key ingredient of the United States' success in war. Force projection is the demonstrated ability to alert, mobilize, deploy and operate forces rapidly, anywhere in the world.<sup>2</sup> It is designed to be a strong deterrent against a would-be aggressor, or in the event deterrence fails, a procedure by which the United States can achieve decisive victory if threatened or attacked. Force projection applies to the entire Army, active and reserve components, based in or outside the continental United States. It is a key element of a power projection strategy - the

ability of the nation to apply all or some of the elements of national power to act in crisis, to contribute to deterrence, and to enhance regional stability. Power projection is a central element of US national security and national military strategy.<sup>3</sup>

In the past, our nation has always had the time to build its strength because of the protective barriers afforded by two large oceans. Mostly self-sufficient, possessing an ample supply of both natural and human resources, together with a robust industrial base, the American 'arsenal of democracy' has depended on few others to project force.<sup>4</sup> As the time available for force projection grows shorter, and the number of potential adversaries grows more diverse, it is unlikely that the United States can count on such advantages in the Twenty-first Century.

Because of current and projected defense cuts, timely force projection will become even more critical to the nation's future security. A changing strategic landscape that includes new threat considerations and an uncertain economic foundation certainly warrants change, but what changes should be made, absent a clear vision of the future, is open to question. Senior leadership cannot simply ignore the challenges and issues that come with adopting a two Major Regional Conflict (MRC) strategy without careful examination of history, key assumptions, and those variables that will impact on future warfare.

This study focuses on force projection and the ability of the United States Army to generate the forces required to win quickly and decisively in a two major regional conflict (MRC) scenario. The timeliness of future force projection and its ability to support the two MRC strategy (if it is a real strategy) depends on the accuracy of a number of assumptions. This paper will examine the two MRC strategy as outlined by the Department of Defense (DOD) Bottom-Up Review and The Defense Planning Guidance, and will challenge some of the key assumptions that are critical to the strategy's success. The assumptions that will be analyzed are; 1) That warning time of an attack and political reaction to this warning will be sufficient and accurate<sup>5</sup>, 2) That Army National Guard enhanced combat brigades can be deployed within 90 days from the date of call to active duty<sup>6</sup>, 3) That sufficient CSS support forces can be available to support combat operations in two simultaneous conflicts<sup>7</sup>, and 4) That there are sufficient strategic lift assets and adequate prepositioned equipment to move and outfit the required force<sup>8</sup>. As a representative example of the DOD force structure, the study will focus mainly on issues that are related to the U.S. Army, both active and reserve.

This study will define **Force Projection** - as the movement of military forces from CONUS, or an overseas theater, in response to requirements of war or operations other than war. Force projection operations extend from



mobilization and deployment of forces, to redeployment to CONUS or home theater, and subsequent demobilization.<sup>9</sup>

It is clear that the standard of a 'two war' force is the key standard adopted to measure our ability to secure our national interests and enhances our security abroad.<sup>10</sup> Although the National Military Strategy for 1994 has not yet been published, it appears that DOD has charged ahead with the two MRC concept. By putting the requirements for the two MRC concept in the Defense Planning Guidance, and because they have used the results of the Bottom-Up Review to develop the fiscal year 1995 budget and Future Years Defense Program, the two MRC concept has in fact become a 'defacto strategy'. What is lacking is a cohesive, articulate plan, that develops the two MRC concept into a new force projection strategy. Absent such a clear, force projection strategy, the two MRC concept is taking on a life of its own and having a dramatic impact on the force structure, infrastructure, and direction of the armed forces as we evolve into a new technological era. At the present, programs, force structure, and budgets for force enhancements are being altered to support the key assumptions laid out in the Bottom-Up Review. We are blindly following a strategy, that is in fact not a strategy. Moreover, the assumptions on which the concept was based have not been analyzed in detail. Some may not even be valid. Since force projection is the key ingredient to winning our nation's wars, it is essential that the strategy

used to project that force be grounded on a solid foundation. As the timeline for contingency operations grows shorter, and the number of forces and infrastructure grow smaller; our senior leaders must ensure we have an appropriate force projection strategy to lead and focus our efforts on the essential factors that relate to the warfighting scenarios of the future. This study suggest that if actions are not taken to identify, solidify, and increase our force projection capabilities, then the forces may not be able to meet the crisis response demands of 2001 and beyond.

## II. -- POLICY AND STRATEGY

I sometimes wonder whether in this respect a democracy is not uncomfortably similar to one of those prehistoric monsters with a body as long as this room and a brain the size of a pin: he lies there in his comfortable primeval mud and pays little attention to his environment; he is slow to wrath-- in fact, you practically have to whack his tail off to make him aware that his interests are being disturbed; but, once he grasps this, he lays about him with such blind determination that he not only destroys his adversary but largely wrecks his native habitat.<sup>11</sup>

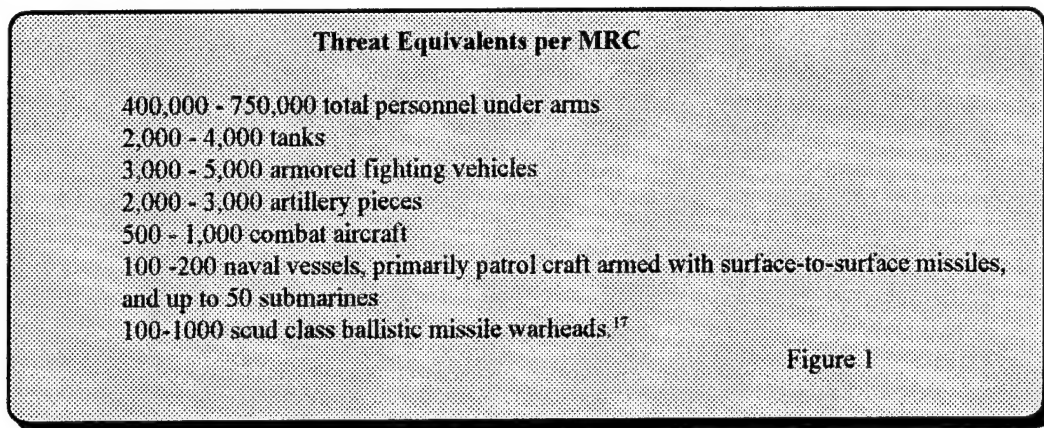
George F. Kennan

As significant changes in the strategic security environment have evolved, it has become clear the strategy that guided our security policies during the Cold War is inadequate. In a speech in Aspen Colorado, in August 1990, and subsequently in his 1991 National Security Strategy, Former President George Bush presented a defense plan that reflected a shift in U.S. strategy from one of preparing for war with the former Soviet Union, to a strategy that focused on regional conflicts with unknown adversaries.<sup>12</sup> With the change of administrations, the 1994 National Security Strategy took a new approach of Engagement and Enlargement but retained a regionally focused strategy to protect U.S. interests. At the direction of the President, the Department of Defense reassessed U.S. defense requirements in a study called the Bottom-Up Review.<sup>13</sup>

This review, completed in October 1993, (in only seven months) was intended to define the strategy, force structure, modernization programs, industrial base, and infrastructure needed to meet new dangers and seize new opportunities extending into the 21st century.<sup>14</sup>

What was originally presented as a complete and sufficient study, upon closer scrutiny appears to contain several problems in detail, questionable assumptions, and a weak underlying analysis. The Bottom-Up Review adopted a strategy of engagement that discarded the old danger of global threat from massive Soviet nuclear and conventional forces, and posited a new set of threats, including the spread of nuclear weapons, aggression by major regional powers, regional instability resulting from ethnic or religious conflicts, failure of democratic reform in the Soviet Union and elsewhere, and a failure to build a strong U.S. economy. The Bottom-Up Review suggests the U.S. should respond to these new threats by promoting democracy, economic growth and free markets, human dignity, and peaceful resolution of conflict, giving first priority to regions critical to our interests.<sup>15</sup> The authors of the Bottom-Up Review determined that, in order to protect U.S. regional interests, the U.S. needed to adopt a military posture that would allow the nation to fight and win two major regional conflicts nearly simultaneously. The composition of the potential regional adversaries were expected to be similar, with either capable of fielding a force as depicted in

Figure 1. The aggressor was assumed to launch a short-notice, armor heavy, combined arms offensive against the outnumbered forces of a neighboring regional state.<sup>16</sup>



This notional force, although intended to be used as an example to structure options, has become a measurement against which to compare combat power. Notably, these figures are considerably off the mark when compared to the actual capabilities of the North Korean People's Army and Navy.<sup>18</sup> Although the assumptions about enemy strengths will not be addressed specifically, this is the first indicator that the Bottom-Up Review premises may be lacking in accuracy.

Based on these enemy planning figures, the Bottom-Up Review evaluated various strategy and force options. DOD chose a option that could deal with two

near simultaneous MRCs. Under this scenario, it was assumed U.S. forces are not sufficient in the region when hostilities begin. This requires force projection to the theater to supplement the indigenous force. The strategy envisioned has four phases: 1) Halt the invasion, 2) Build up U.S. and allied combat power in the theater while reducing the enemy's, 3) Decisively defeat the enemy, 4) Provide for post-war stability.<sup>19</sup> The Bottom-Up Review determined the force structure necessary to execute the selected strategy. The forces believed required to win two simultaneous conflicts, with minimum risk are shown in Figure 2.

Two MRC Force Requirement	
Army	10 active divisions 15 reserve enhanced-readiness brigades
Navy	11 carrier battle groups 1 reserve carrier
Marine Corps	5 active brigades 1 reserve division
Air Force	13 active fighter wings 7 reserve fighter wings
* In addition to these forces several force enhancements would have to be made to the current force structure. <sup>20</sup>	

Figure 2

Additional combat forces in the National Guard, now organized in eight divisions, are not programmed to be used in a two-conflict scenario. These

divisions are expected to perform missions, such as providing rotational forces for extended crisis and protracted peace operations. These forces are also to be used to meet routine domestic challenges, such as natural disasters and civil unrest. The Bottom-Up Review did not program their use in the two conflict scenario, nor did it address the force structure requirements for CS and CSS units for the two MRC contingency.

The Bottom-Up Review made several critical planning assumptions about force projection and capabilities. They include: 1) That warning time of an attack and political reaction to this warning is sufficient and accurate, 2) That Army National Guard enhanced combat brigades can be deployed within 90 days from the date of call to active duty, 3) That sufficient CSS support forces would be available to support combat operations in two simultaneous conflicts, and 4) That there are sufficient strategic lift assets and adequate prepositioned equipment to move and outfit the required force. 5) Force enhancements, such as improvements to the strategic mobility and U.S. firepower would be available by the year 2000. 6) The industrial base can support the hardware, spare parts, and ammunition requirements for two MRCs. 7) Forces would be available to redeploy from other operations, such as peacekeeping, to the regional conflict, and forces would be able to redeploy between the theaters that were involved in the regional conflicts.<sup>21</sup>

In September 1993, Secretary of Defense, Les Aspen, issued the Defense Planning Guidance for fiscal years 1995 to 1999. Even though the Bottom-Up Review findings had not been published officially, the new Defense Planning Guidance provided a blueprint to adopt the findings of the Bottom-Up Review. Subsequently, in May 1994, the Defense Planning Guidance, providing guidance for fiscal years 1996 to 2001, again outlined the findings of the Bottom-Up Review in a illustrative planning scenario of how the U.S. would respond to and win two, nearly simultaneous regional conflicts. More specifically, the defense planning guidance depicted a scenario in which the United States was involved in a major regional conflict which required large force projection capabilities. During this conflict, a second aggressor takes advantage of the situation and invades a country in a theater, located half way round the world.<sup>22</sup>

The scenario envisions that U.S. combat and supporting capabilities, including strategic mobility forces, would first focus on projecting force to, and fighting the first conflict, until indicators of a second conflict are recognized. While fighting the first MRC, the U.S. would simultaneously deploy to and begin fighting the second conflict. The Defense Planning Guidance made several key assumptions that are critical to the success of this two MRC strategy, including the anticipated warning time, number of days separating the two conflicts, forces sufficient to respond to each conflict, additional forces available to the war-



fighting commanders if adverse conditions developed, and the timing for completing the various combat phases.<sup>23</sup> These assumptions are similar to those laid out by the Bottom-Up Review.

With this new guidance, the Joint Chiefs of Staff, service components, and military planners, were required to plan for the projection of force in accordance with the two regional conflict strategy. This guidance is clearly the key ingredient in the formation of service priorities, force composition, and budgetary apportionment.

Several studies are currently being conducted on the feasibility of several of the Bottom-Up Review and Defense Planning Guidance assumptions, most of which are due to be completed this year. The analysis is being done, however, as the armed services move into full swing of implementing the Bottom-Up Review strategy. Already, several irretrievable decisions with regard to force structure, service priorities, and infrastructure, have been made based on the Bottom-Up Review assumptions. If these assumptions proved to be invalid, it will take years, if not decades to correct. This study will further examine some of the assumptions that appear to be questionable.

### III. -- BACKGROUND AND ANALYSIS

It would be very difficult for a democracy to avoid some degree of unpreparedness such as we had in 1939. We had almost no preparedness then. I would say the greatest service we have been rendered has been by Molotov and Vishinsky, because they have kept the Congress so stirred up... if they had subsided, there is no doubt in my mind at all our appropriations would have subsided in a very large measure. The taxpayer is going to dominate and the political action is going to follow. And as soon as it appears to quieted down, all the appropriations are going to begin to lapse. It has happened, and it's happened, and it will happen again.<sup>24</sup>

General George C. Marshall

As we reduce the size of our military in response to a changing strategic environment, we must adopt and preserve a credible capability to generate, train, and deploy forces on a timeline that supports our power projection strategy. Force projection plays a major role in our nation's ability to project power, by providing a capability to generate forces faster than a potential adversary can generate a credible offensive threat to our vital national interests.<sup>25</sup> Not a new concept, force projection has become the traditional American way of waging war since the closing of the western frontier. All of the United States' twentieth century wars have involved force projection. Known before as national mobilization, "... it is the basic factor on which depends the successful prosecution of any war."<sup>26</sup> Unfortunately, the United States has a poor historical

record of being prepared at the outbreak of hostilities.

The real issue is time. Time becomes more of a key factor as the strategic depth available to the nation shrinks. Our traditional force projection strategy, as well as the current one, assumed early detection and a decisive reaction by the political leadership once a global or regional threat was identified. Walter Millis, in analyzing World War I, notes, "After the 'token' dispatch of the 1st Division to Europe, beginning in May 1917, many long months were to elapse before any further combat ready troops were to become available."<sup>27</sup> The political decisions necessary to mobilize the force were made late, delaying the necessary organization, training, and deployment of forces, all of which took, and still takes, considerable time. Although the United States eventually joined the European effort to defeat the Germans, U.S. forces had to be equipped largely by the Europeans.<sup>28</sup> The foreign war supplies included airplanes, artillery, small arms (British Enfield's) and ammunition. "Weapons, even though much simpler in those days than they were later to become, could not be conjured up as easily as men."<sup>29</sup>

The premier experience of force projection of U.S. forces occurred during World War II. In 1939 the U.S. Army was maintained at a strength of about 200,000 in the Regular Army and the National Guard. Both were poorly equipped, with outdated World War One-era doctrine, weapons, and material.

Even though it was obvious to the average American that another tragedy in Europe was inevitable, the support for mobilization was almost nonexistent. The Army Chief of Staff, George C. Marshall undertook a dramatic effort to generate the forces necessary to assist potential allies in the European Theater of War. On September 8, 1939, President Roosevelt declared a 'limited' national emergency, which authorized immediate increases in the armed services. It took Marshall two years, until December 1941, to generate an Army of 1.4 million soldiers who were serving in 36 combat divisions and 64 Air Groups, laying the foundation for a force projection capability that would identify America as the "Arsenal of democracy."<sup>30</sup> It would however, take another full year before the U.S. projected a force of any size into the theater (Guadalcanal in August 1942, and North Africa in November 1942). It was still an additional year before American forces and production were having an effect on the "hopes and calculations of the enemy."<sup>31</sup> The U.S. effort to project force came slow and only well after Europe was dangerously near collapse and, yet again, a blood sacrifice had been paid because of initial hesitations.

By mid 1950, the stage had been set again. In June 1950, when the North Koreans invaded the south, the United States relearned a lesson about preparedness, only five years after a decisive victory in World War II. Again, America was not prepared to project forces to the site of conflict. Complete

disaster was avoided at the price of tremendous human sacrifice. The initial lack of readiness cost the nation dearly, and proved that even a world superpower cannot go to war, if it's not ready, without severe consequences.

The 1980s were a period of large defense investments under Presidents Reagan and Bush directed largely against the Soviet threat to NATO. This relatively heavy peacetime investment in defense, coupled with the collapse of the Soviet Union, left an unusually large residual force available that could be used elsewhere. These unique circumstances, coupled with the relative insignificance of the threat, are significant factors in "breaking the mold" of traditional military unpreparedness with the highly successful performances in Operations Just Cause and Desert Storm. Desert Storm, proved to be one of America's most successful U.S. attempts at timely force projection. Generating forces for Operation Desert Storm was extremely successful, faster, and more efficient than any force projection operation in the history of U.S. involvement in war. U.S. armed services were able to project force at a rate four times faster than what was accomplished during the Vietnam War.<sup>32</sup> This was not accomplished, however, as easily as most people think and certainly not without monumental efforts by 3rd Army and U.S. Forces Command. The actual flow of forces fell well short of the projected timelines and expectations.<sup>33</sup> Again, as so many times in the past,

war plan assumptions were spoiled by the concerns of policy makers and the tentative nature to commit to timely mobilization decisions.<sup>34</sup>

The U.S. is usually unprepared to begin force projections operations at the outbreak of hostilities for all the reasons Marshall recognized. The political decision making process is slow to make decisions based on early warning indicators because of the ambiguity, and the unwillingness to confront public opinion. The U.S. track record of force projection, as evidenced from these historical examples, suggests that the prospect of timely force projection is dubious, at best. To broadly promise, therefore, early detection, early decision, and early action in future years is not realistic. The key assumption in the Bottom-Up Review, and in the Defense Planning Guidance, regarding early warning and timely reaction to separate regional conflicts has little credibility.

The second assumption worth close examination is the ability of the Reserve Component enhanced combat brigades to meet the 90 day deployment timeline as outline in the Bottom-Up Review.

"We have hedge the risks associated with two nearly-simultaneous MRCs by relying more heavily on mobilization in order to avail ourselves of the contributions of our National Guard and Reserve forces." As an example, the Reserve Component enhanced combat brigades will reinforce active duty combat forces in theater.<sup>35</sup>

Secretary of Defense, Les Aspen

This statement by former Secretary of Defense Les Aspen, taken from the Defense Planning Guidance, hints at the dependence the Bottom-Up Review is putting on the availability of Reserve Component enhanced combat brigades. The Bottom-Up Review also states that, the enhanced combat brigades will be organized and trained for quick mobilization and deployment. The Army has committed to the readiness of the enhanced brigades and established a specific goal to have these brigades ready to begin deployment within 90 days of being called to active duty. The Army Chief of Staff, in April 1994, approved a plan to convert 15 of the Guard brigades, 8 heavy brigades and 7 light brigades, to serve as the enhanced combat brigades.<sup>36</sup> Although the Army has assumed that these enhanced brigades could deploy quickly to reinforce active divisions in a regional conflict, there are several indicators that this assumption is flawed.

Prior to and during the Persian Gulf War, many of the active combat divisions were to receive a "round out" brigade from the National Guard to complete their divisional structure. Two of these divisions, the 24th Infantry Division and the 1st Cavalry Division, were deployed to the Persian Gulf, essentially with no-notice, in August and September 1990. However, rather than rounding them out with their affiliated National Guard units, the Army completed their divisional structure with active Army brigades, the 197th Separate Infantry Brigade (SIB) and 1st Brigade, 2nd Armor Division. Subsequently, in November

and December 1990, three National Guard roundout brigades were activated, the 48th Infantry Brigade, the 155th Armor Brigade, and the 256th Infantry Brigade. The 48th and the 155th roundout brigades had long-standing relationships and had the same priority for equipping as did the parent divisions. The brigades, however, did not deploy to the Persian Gulf. Instead, they remained in a training status until the end of the war.<sup>37</sup>

Both the 197th SIB and 2nd Bde, 2AD demonstrated a higher level of proficiency at the time of their deployment to the Persian Gulf for almost every objective measure of individual and unit proficiency than the designated roundout brigades. Although the proficiency of the roundout brigades improved during post-mobilization training, according to the Government Accounting Office (GAO) findings their overall proficiency did not reach a level comparable to that of the regular replacement brigades.<sup>38</sup> These shortfalls can be accounted for in three categories; training, education, and leadership.

The heart of the training issue is the amount of training time available to the different types of forces. The active force has substantially more training time available during the year. As a result, active duty soldiers are better trained to lead, achieved higher rates on individual skill qualification, and are more proficient in tank and Bradley Fighting Vehicle gunnery skills.<sup>39</sup> Before Desert Storm, the active brigades completed far more collective training exercises at the



company, battalion, and brigade levels, thus providing brigade and battalion staffs with a greater opportunity to develop proficiency in complex synchronization skills that are the most difficult doctrinal and leadership task in the Army.<sup>40</sup>

Another related issue is the level of officer and NCO professional education. Officers and NCOs in the roundout brigades had not, in many instances, completed the required courses, thus contributing to significant leadership problems. In most cases, only 50 percent of the required education had been received by the officers and NCOs in the roundout units. Attending these courses during post-mobilization training took precious time away from the collective tasks process. Much of the poor leadership observed during post-mobilization was attributed to the lack of professional education among the officers and NCOs.<sup>41</sup>

The enlisted schooling situation was not much better. Over 600 soldiers in the roundout brigades had to attend formal schooling related to their MOS to bring them up to trained MOS standards.(48th Bde) The other two roundout Brigades never attained the schooling levels of the replacement units.<sup>42</sup>

The problems identified during the post-mobilization training are not new. The roundout concept has long been burdened with the dilemma of remaining combat ready, while training only 38 days a year. Desert Storm only served as a testing ground to highlight the real issues. The Army currently estimates that

about 90 days of post-mobilization training will be required for National Guard combat brigades to achieve proficiency. Others, however, think there will be a 128 day period of post-mobilization training required before the reserve combat brigades will be ready to go to war.<sup>43</sup> Still others argue this training time may be up to one year (365 days).<sup>44</sup>

To further complicate the issue, much of the post-mobilization training needs to be conducted at one of the three Combined Training Centers (CTCs). The CTCs are manned with active duty soldiers whose main purpose is to train individuals and units to Army, Mission Essential Task List (METL) standards. The current capacity of the three CTCs combined is the ability to train three brigade size forces at any one time. Based on the time projection of 128 days of training days per brigade, it would take 384 days to cycle 9 of the 15 enhanced combat brigades through the training centers. This is well beyond the projected timeline to complete all combat phases as outlined in the Defense Planning Guidance.<sup>45</sup>

Proficiency in leadership, individual, and crew skills are the foundation that supports the Army training philosophy. Soldiers must master their individual and crew level skills before the unit can progress successfully to unit collective tasks. Because of the lack of training time, National Guard and Reserve combat

units seldom become proficient in company, battalion and brigade level training tasks.

The Army has begun initiatives under a program called Bold Shift that is focusing the limited amount of training time available to reservists on the fundamental building blocks of Army training. In theory, this will be better prepare the reservists to develop the skills required at higher echelons during post-mobilization training.<sup>46</sup> This may in fact, solve several of the problems identified during the Gulf War. However, as the type of missions grow more diverse, the technical expertise required grows larger, and the complexity of synchronizing the future battlefield increases, it is unlikely that the enhanced combat brigades can achieve the desired standards in training, in the current allotted amount of time. Currently, even with the Bold Shift Initiatives, the National Guard brigades show deficiencies equal to the roundout brigades prior to Desert Storm.

The Bottom-Up Review and the current Defense Planning Guidance have assigned the same wartime mission to the enhanced combat brigades as were given to the follow-on, Reserve and National Guard divisions in World War II. This is an example of trying to solve a new problem by applying old missions and ancient organizational structure. The critical difference in today's crisis action army is that the time available to train soldiers to acceptable standards is much

shorter than the two to four year train up period for WWII. As we have learned so many times in the past, we can not afford to project a force, that is not trained to perfection.

The next assumption worth further analysis is the assumption that sufficient CS and CSS assets will be available to deploy the force in two simultaneous conflicts. Successful force projection operations require comprehensive logistic support from initial planning at the national and strategic level to effective execution that gets support to the soldiers on the ground.<sup>47</sup> The numbers and types of divisional support units are determined by the size, composition, and missions of the force that they support. Similar divisions will have similar divisional support structures to support their operations. For nondivisional support, the Army conducts a biennial process, referred to as the Total Army Analysis, which determines the numbers and types of units that are required for the total combat force. The Total Army Analysis to determine nondivisional support requirements for the Bottom-Up Review began in July 1994, and is not expected to be complete until mid-1995. The Bottom-Up Review in October 1993, however, did assume that sufficient support forces were available for combat operations in two simultaneous conflicts.<sup>48</sup>

In responding to the Persian Gulf War, a single regional conflict, the Army had difficulty providing sufficient support units, even though it deployed

only a portion of its total active combat force-- about 8 of the 18 divisions.<sup>49</sup> To support these combat forces, the Army deployed virtually all of some types of nondivisional support units and exhausted some other units. As an example, the Army deployed virtually all prisoner-handling, postal, and medium truck units and all graves registration, pipeline, and terminal operation, heavy truck, and water supply units that were in the inventory.<sup>50</sup>

In the most recent Total Army Analysis, the Army decided not to resource 838 of the nondivisional units that are required to support a 12 active division force.(Figure 3)<sup>51</sup> Although these 838 units are a small portion of the total nondivisional support requirement, they represent important capabilities required to project force and support combat operations. Army officials participating in the ongoing Total Army Analysis anticipate that the Army, because of competing priorities, will probably not allocate resources to all of the nondivisional support units required to support the defense planning guidance and the two-conflict strategy.<sup>52</sup>

Unresourced Nondivisional Units	
Type of Unit	Number of units
Aviation	1
Chemical	6
Engineering	54
Medical	31
Ordnance	100
Quartermaster	210
Signal	12
Adjutant General	26
Finance	10
Chaplin	12
Military Police	1
Military Law	32
Psychological Operations	10
Military Intelligence	3
Maintenance	84
Headquarters	16
Transportation	230
<b>Total</b>	<b>838</b>

Figure 3

In analyzing the nondivisional support requirements in two of the U.S. war plans for responding to regional conflicts, 17 types of units were compared that are needed to support the two separate war-fighting commands. The results were the Army is short 238 units for one of the two plans.<sup>53</sup> The largest shortfall--a total of 206 units--consisted of five types--medical, engineer, quartermaster, transportation, and military police units. In analyzing the combined requirements

of the two plans for these five types of units, the analysis shows that the shortfall would increase from 206 to 338 units.<sup>54</sup>

This data also shows that 654 of the same types of nondivisional support units were assigned to both of the regional conflict plans--dual-tasking to support combat operations in both conflicts.<sup>55</sup> Similar to the shortfalls previously mentioned, the largest number of dual-tasked units--a total of 464 units--consisted of medical, engineer, quartermaster, transportation, and military police units.

By drawing inference from Operation Desert Storm, the Bottom-Up Review has assumed that the Army can meet readiness and deployment timelines with current support forces. This analysis, however, suggests that RC support units in their current configuration and status, cannot meet the readiness and support requirements of the current force, and the ability to support that force in a two-conflict scenario is even less likely.

There are many reasons that support during Operations Desert Storm was successful and sufficient. First, there was ample warning time to begin the arduous process of projecting the force and the building of theater stockpiles. Secondly, there was an abundance of host nation support, which greatly enhanced the speed and the throughput of supplies. Thirdly, there was an abundance of combat support forces to draw from to get the number and type units necessary to support the combat requirements. In the past the National Guard and Reserves

have relied heavily on a cross-leveling strategy to enhance the readiness of deploying units.<sup>56</sup> The units mobilized may represent a biased sample of Army Reserve Component support units, since considerable cross-leveling did occur. Those selected appeared to be the most capable or ready.<sup>57</sup> Lastly, the duration of combat during Operation Desert Storm was short and confined to one theater of operation. The force projection vision for the future has a 10 division active force, plus a portion of the 15 enhanced combat brigades, moving simultaneously to multiple theaters, conducting weeks of intense combat operations, and this being accomplished by a smaller, and leaner divisional and nondivisional support structure than existed during the Gulf War.

The final assumption that will be analyzed is there is sufficient strategic assets to support the lift requirements of forces needed to combat a two regional conflict scenario.

When President Bush deployed American combat forces to the Persian Gulf on 7-August 1990, he launched the greatest airlift in history. In the next seven months, the Military Airlift Command (MAC) would airlift to the Gulf over a half-million short tons of cargo and almost a half-million passengers. This operation moved ten times the daily ton-miles of the 1947-1948 Berlin Airlift and four times that of the 1973 airlift to Israel. Unlike those previous, primarily logistic airlifts, Operation Desert Shield marked the first major strategic



deployment of combat units by air. In the first 30 days of the airlift, MAC transported equipment and personnel for several hundred combat aircraft, the 82nd Airborne Division, elements of the 101st Airborne (Air Assault), a Marine Air-Ground Task Force, plus headquarters and support units.<sup>58</sup>

With this as the most recent precedent, the Bottom-Up Review assumed that sufficient strategic mobility; airlift, sealift, and prepositioning of equipment at forward locations would be available and present to execute the two conflict strategy.<sup>59</sup> Yet by many measures the strategic airlift system, in Desert Storm, did not appear to attain its expected performance level, nor should the Gulf War be compared to supporting two simultaneous conflicts. Daily throughput fell below Central Command's (CENTCOM's) expectations. Utilization rates were a third to a half below planned levels: 5.7 hours for the C-5 and 7 hours for the C-141. The percentages of aircraft available for the C-5 was only 67 percent and for the C-141, 81 percent. Average payloads were 12 to 40 percent below planning factors.<sup>60</sup> These shortfalls suggest that, either capabilities are overestimated, or there are problems in operational efficiency that should be accounted for in our force projection strategy.

Closer examination of the strategic air issues can be divided into four categories: planning, aircrew availability, bases, and aircraft performance.

Operation Desert Shield began without a formal plan or feasible Timed-Phased Force Deployment Data (TPFDD). Requirements were defined as the deployment developed and changed frequently as the operation evolved. Some of the apparent shortfalls in capability arose from people outside MAC who did not understand the assumptions underlying planning factors. Therefore, they built plans and prepared loads on faulty expectations.<sup>61</sup>

Aircrew availability is an equally important issue. Roughly half of all MAC's/ AIR Mobility Commands (AMC's) strategic aircrews are in the reserve. Commonly cited utilization rates assume all these aircrews are available. However, President Bush did not authorize the call-up of reserves until 16 days into the deployment and then only partially. The Air Force eventually authorized activation of all the reserve crews for the C-5s and three-quarters of those for the C-141.<sup>62</sup> This late and incomplete call-up of reserves made it impossible to achieve full utilization of the fleet. Exacerbating the crew shortage was the lack of staging bases in the Southwest Asian theater. This meant that MAC had to use augmented crews--specifically, three rather than two pilots--for the European-theater-Europe leg of the mission, where crew duty days routinely reached 24 hours. The lack of stage base at a time when aircrews were scarce could by itself explain a 20 to 25 percent shortfall in system performance.<sup>63</sup>

The basing in itself could be enough to prevent the U.S. from executing a strategy to fight two simultaneous MRCs. During the Gulf War, MAC experienced various problems at onload, offload, and enroute bases. Most deploying units were unable to prepare cargo within the time assumed in planning factors, especially when airlifters arrived at a rate of more than one per hour. This difficulty caused many missions to be delayed or postponed, reducing the utilization rate. There were relatively few enroute bases that could handle the airflow which made the entire system sensitive to any disruption. Three enroute bases handled 61 percent of the airflow and of these, Zaragoza and Torrejon are now closed and Rhein-Main is restricted. At both onload and offload bases, old material-handling equipment proved to be unreliable and frequently caused delays or limited throughput.<sup>64</sup>

The final issue with strategic airlift is the question of aircraft performance. On an average, every Operation Desert Shield/Storm mission was delayed 10.5 hours, with logistics problems predominating. The C-5 in particular suffered from maintenance problems, with 33 percent of the aircraft deemed unavailable, on average (18 percent of those aircraft were unavailable because of maintenance problems). The C-141 had a better maintenance record, but its average payload was 26 percent below planning factors. Concerns about fatigue displayed in the inner-outer wing joint of the aircraft resulted in load weight restrictions.<sup>65</sup>

The implications of these strategic lift issues in a two regional conflict scenario are even greater. The Bottom-Up Review relied heavily on the results of *The 1991 Strategic Mobility Study*. This was a congressionally required study to determine future requirements for airlift, sealift, prepositioning, and recommended a program to improve DOD's mobility capability. The study concluded that its recommended program, upon which the Bottom-Up Review relied heavily, is not sufficient to handle a second concurrent major regional conflict at moderate risk.<sup>66</sup> To make matters worse, the study did not address the issues of planning, crew availability, and bases, nor does it appear that the issues were considered by the Bottom-Up Review.

The mobility study recognizes the C-141 is approaching the end of its service life and to retain the capability to support a deployment of the scale of Desert Shield, it must modernize its airlift fleet. The C-17, with its final buy of 120 aircraft would fulfill the requirement of the aging 265 C-141 fleet, and offer substantially more capability.<sup>67</sup> However, the C-17 is lagging behind its projected timeline, and it appears will not have ample aircraft to carryout the 1996-2001 Defense Planning Guidance intent.<sup>68</sup> Even if the C-17 was produced to full capacity, it does not solve the issue of projecting force to simultaneous MRCs.

The nation has historically relied on a balance of capabilities when deploying forces to the site of a crisis. Prepositioned material, sealift, and airlift--

frequently called the mobility triad--provide this balance. Each leg of the triad has different strengths and weaknesses.

The airlift to the Gulf relied heavily on the facilities provided by Torrejon, Rhein-Main, and Zaragoza. As stated earlier, these three bases supported 61 percent of the entire airlift flow. Zaragoza and Torrejon are no longer available to AMC, Headquarters USAFE has reduced operations at Rhein-Main. Similarly, Clark Air Force Base in the Philippines, which would have been the primary strategic airlift base for contingencies in the Asia-Pacific region, has been closed. This could have significant impact on the force projection capability of the U.S., which does not appear to be accounted for in the Bottom-Up Review of strategic lift. The assumption that sufficient strategic lift would be available to project forces in a two regional conflict scenario appears to be invalid for the time period laid out in the current Defense Planning Guidance (1996-2001).

## V. - RECOMMENDATIONS AND CONCLUSIONS

...We have paid, and paid, and paid again in blood and sacrifice for our unpreparedness...I don't want war but I am appalled at the human cost that we've paid because we wouldn't prepare to fight...<sup>69</sup>

General Creighton Abrams

This study has analyzed four of the DOD assumptions that were made in the Bottom-Up Review and the Defense Planning Guidance, and offers specific recommendations on each assumption plus an overall recommendation, for consideration on adopting a new force projection strategy.

The United States has always had an embedded character trait of national reluctance to take up arms against a would-be aggressor. This trait has manifested itself, not through the lack of warning, but through an inability to act on the warnings provided. When the warnings are themselves ambiguous, decision is even more difficult and the prospects of making more rapid decisions in the future are growing ever dimmer. The rapidity of political, national and social changes in the world today, many through violent internal upheavals, makes it more difficult to predict not only who will be in power tomorrow, but

what their intentions may be.<sup>70</sup>

Unless the political framework for making decisions is changed, force projection decisions must be made within the structures provided in the Constitution and security planning must assume lengthy delays as a consequence. Presidential willingness to act on intelligence has been notoriously slow when faced with major international crisis, and for many compelling reasons.<sup>71</sup> The two regional conflict scenario, that occurs almost simultaneously, will complicate these political decisions even further. Policy makers and planners should operate on the premise that political decision will come later rather than sooner, and only then incrementally, and develop a strategy that accounts for delays in decision making versus assuming timely political decisions and early warning. The warning time for the two regional conflicts, and the separation time between the two conflicts, are likely to be shorter than DOD envisions,<sup>72</sup> and the plans should be adjusted accordingly.

The second assumption analyzed determined that the Bottom-Up Review did not analyze the specific wartime requirements for the enhanced combat brigades.<sup>73</sup> As a portion of the total force, the concept of the enhanced combat brigades must be reviewed to see if the concept is valid in supporting the proposed force projection timelines in the Bottom-Up Review and Defense Planning Guidance. The answer may be as simple as how many brigades can be

properly trained and deployed within the timeline required by the Bottom-Up Review strategy. This deployable number may be and probably is something less than 15. If that is so, more brigades may have to remain on active duty to meet the desired force projection timelines. Another course of action may be to increase the number of training days from 38 per year to a number that allows the enhanced brigades to maintain a C-1 training readiness level. This may be necessary to achieve the training standards desired within the 90 day timeline. Part or all of the enhanced combat brigades may be involved in the new force projection strategy. The methods to support the end state must be analyzed in detail. The problem should be viewed from the perspective of how to support the new strategy, and not writing a strategy that fits within current constraints. Parochialism, although a monumental roadblock, when it comes to active duty and reserve component strengths, must be overcome for the good of the national security strategy.

The next analysis focused on the abilities of the CSS assets. The conclusion reached is that the Army does not have sufficient forces to support its current combat force.<sup>74</sup> An option for augmenting the Army's nondivisional support capability is to use existing support capacity--units, personnel and equipment--in the eight National Guard divisions that DOD did not include in the combat force for executing the two-conflict strategy. These divisions contain



support units that are functionally similar or identical to nondivisional support units that were not allocated resources during the 1993 Total Army Analysis.<sup>75</sup> These divisions also have many of the same types of skilled personnel and equipment as the nondivisional support units. By using units, personnel, and equipment in the eight divisions, the Army could create additional nondivisional support units or augment existing ones.<sup>76</sup> This recommendation could be implemented by (1) identifying the specific unresourced nondivisional support requirements that could be met using National Guard divisional support units and the personnel and equipment in these units and (2) working with the National Guard to develop a plan for employing this capability that supports the new force projection strategy. At a minimum, further research must be conducted to determine CS and CSS requirements in the two conflict scenario and then the support forces must be realigned to support this new strategy.

The fourth analysis reviewed the capabilities of current and future strategic lift. Clearly, strategic maneuver is critical to projecting contingency forces in year 2001. The Mobility Requirements Study conducted by DOD in 1992/1993 produced an integrated mobility plan that established the requirements for strategic lift for the U.S. The study shows strategic lift is inadequate at this time. Even with the fielding of additional sealift, new aircraft, and improvements in the U.S. strategic mobility infrastructures, attainment of U.S. objectives by

year 1999 will still expose us to moderate risk.<sup>77</sup> Extending this risk out to year 2001 compounds the problem if additional lift is not procured for expected retirement of aging systems. This program must be funded, and further analysis must be conducted to determine the mobility requirements for a two MRC scenario. This too, must be funded. Secondly, the Bottom-Up Review scenario does not recognize that both theater commands have operational requirements for some of the same air, ground, and naval forces and prepositioned equipment that, if deployed to the first conflict, will not be available when needed for the second. The current method of apportionment has not changed from our Cold War era strategy. This along with the requirement to support near simultaneous MRCs makes the apportionment of strategic airlift and sealift assets inadequate. A new concept for deploying forces, in line with a new power projection strategy, should be further studied and developed to support the strategic mobility requirements.<sup>78</sup>

The analysis of the Bottom-Up Review and the previous assumptions has led the author to make the following additional recommendations. The next war will not be fought on the same basis as the last one, and consequently, old models may not be appropriate. The Army must adopt a new Power Projection Paradigm which supports the two major regional conflict strategy. The old strategy of "forward deployed/reinforcing" strategy of the cold war era must be replaced by a new one of "forward presence/power projection" for a regional defense.<sup>79</sup>

The current U.S. Marine Corps doctrine for expeditionary forces provides a good starting point for such a strategy. The Marine-Air-Ground Task Forces (MAGTFs) are structured to provide the joint force commander with a readily available, self-sustaining, combined-arms force. MAGTFs are structured with an operational mindset--a commitment to strategic agility, rapid response, sustainability, and flexibility. The command and control structures, combat elements, and combat service support elements are organized with one purpose in mind--power projection world-wide. MAGTFs are built upon strategically deployable modules (crisis action modules--CAMs), which are resourced with available lift (strategic air, amphibious lift/strategic sealift, and maritime prepositioning).<sup>80</sup> This should be considered as a possible model as the Army reorganizes and prepares to position itself to fight a two regional conflict scenario.

Secondly, a total review of reserve component forces should be conducted to increase their utility for contingency operations and in support of our national security strategy as a whole. The Total Force has proven to be a success in the past, but there are institutional shortcomings which were highlighted during Operations Desert Shield / Storm. Clearly, by the year 2001, if current trends continue, reserve forces will play a larger role in force projection operations. Thus, the Total Force successes need to be exploited and identified shortcomings

need to be addressed. Future reserve components will have to be more responsive, possess higher levels of skills and readiness, and be linked more directly to active forces for integration into the fighting forces in times of crises. Contingency force packages in year 2001 will require the use of reserve forces to offset the lack of active force.<sup>81</sup> We must address this requirement now to shape a reserve component structure that will meet the readiness requirements of force projection operations in the future.

**In the aftermath George Marshall reflected:**

"We may elect again to depend on others and the whim and error of potential enemies, but if we do we will be carrying the treasure and freedom of this great nation in a paper bag."<sup>82</sup>

It is clear that U.S. and Army leadership recognizes the strategy that guided our security policy during the Cold War is inadequate. There is also a common vision among America's leadership of what the Army must be capable of doing now and throughout the 21st Century. Simply put, we must be capable of responding quickly and operating effectively to fight and win in a regional or global conflict to protect U.S. national interests. But what has failed to evolve is

a clear strategy that describes the methods to achieve the desired outcome accompanied by the forces necessary to support it. The Bottom-Up Review, the current foundation of our evolving strategy reads well but is a hollow program based on faulty assumptions. It was a step in the right direction, in framing the issues, defining the problems and recommending a course of action that may or may not evolve into a new military strategy. One could easily argue it is the first crucial step in breaking the Cold War Paradigm and beginning the evolution of a new Power Projection Strategy. But the fact is, the Bottom-Up Review was a top down analysis, defined by economic and budget constraints and, it has become the strategy on which the Army is reorganizing, funding and planning strategy for the 21st Century. The critical assumptions, which are in desperate need of bottom-up analysis are currently being studied by the service components and their agencies. In fact, most of the work being done appears to be oriented on how to make the assumptions valid rather than to test for their validity. Whether these assumptions are in fact valid remains to be seen. When assumption proves to be invalid, the result often makes the plan based upon it also invalid. Currently, regional plans have been develop relying on the validity of the Bottom-Up Review.

As force projection evolves more and more into contingency operations - a rapid response to a crisis, it is critical that our strategy to meet this response evolves to meet the new timeline requirements.

The first critical question that must be asked is: Is the two simultaneous MRC strategy in fact the strategy that should be guiding the U.S. Army into the 21st Century? If the answer is yes, then detailed analysis of all the assumptions made in the Bottom-Up Review, and the Defense Planning Guidance, must be completed before drastic decisions; in force cuts, infrastructure closures and organizational changes are made. If it is determined that this is in fact the correct strategy to guide our military, then the recommended programmed enhancements must be produced on the timeline needed to accept only a moderate risk. An all too familiar example of the C-17 is perfect. If the C-17 is needed to support the force projection strategy, then it must be funded on the timeline that has been published. If it falls behind in production, as it has, then another option, like retaining additional divisions on active duty until it is completed, may be required to fulfill the declared strategic objectives.

The United States must retain the ability to use force where its vital interests are threatened-- selectively, judiciously, and effectively. The risks of another 'Task Force Smith' will increase dramatically if planning assessments remain jaded as to real threats and real possibilities. Unfortunately, when the

next global crisis occurs, and sooner or later it will, there may be little time for assembling backup reinforcements, given technology and a continuously shrinking world. The U.S. Army will have to go to war with what it has and its forces must be ready. If tomorrow's force projection capabilities and the will to use them are founded only on hopes or on mythical notions of past strategies and assumptions-- abetted by short memories-- there may be no future at all. "Democracy is not to blame if the nation is unprepared. Rather the citizens of democracy must bear the burden, for surely they will pay the price if found wanting."<sup>83</sup>

## ENDNOTES

<sup>1</sup>Larry I. Bland, ed., George C. Marshall: Interviews and Reminiscences for Forrest C. Pogue (Lexington, VA: George C. Marshall Research Foundation, 1991), 302.

<sup>2</sup>U.S. Army, FM 100-5, Operations, (Washington, Department of the Army, June 1993), 3-1.

<sup>3</sup>*Ibid.*, 3-1.

<sup>4</sup>LTC D. E. Hardy, Reconstitution: A Weak Link in U.S. Security, (U.S. Army War College, Carlisle Barracks, PA., 1993), 3.

<sup>5</sup>Secretary of Defense, William Perry, Defense Panning Guidance, FY 1996-2001, (Washington D.C., May 1994), 6.

<sup>6</sup>Secretary of Defense, Les Aspen, Report on the Bottom Up Review, (Washington D.C., Department of Defense, October 1993), 94.

<sup>7</sup>*Ibid.*, 29, 93.

<sup>8</sup>*Ibid.*, 20.

<sup>9</sup>U.S. Army, FM 100-5, Operations, (Washington, Department of the Army, June 1993), Glossary - 4.

<sup>10</sup>National Security Strategy of the United States (NSS) Washington, The White House, July 1994. 7.

<sup>11</sup>George F. Kennan, American Diplomacy: 1900-1950, 3d ed. (Chicago: The University of Chicago Press, 1951), 66.

<sup>12</sup>President George Bush, Speech before the Aspen Institute, (Aspen, Colorado, 2 August 1990); National Security Strategy of the United States (NSS) (Washington, The White House, August 1991), 4.

<sup>13</sup>National Security Strategy of the United States (NSS) (Washington, The White House, July 1994), 2.



<sup>14</sup>Secretary of Defense, Les Aspen, Report on the Bottom Up Review, (Washington D.C., Department of Defense, October 1993), 1.

<sup>15</sup>Ibid., 3.

<sup>16</sup>Secretary of Defense, Les Aspen, Defense Panning Guidance, FY 1995-1999, (Washington D.C., September 1993), 16.

<sup>17</sup>Bottom Up Review, October 1993, 13.

<sup>18</sup>Robert Hall, Ian Kemp, Jane's Intelligence Review, Special Report No. 2, North Korea, A Potential Time Bomb, (Jane's Information Group, Alexandria, VA.), 16-21.

<sup>19</sup> Secretary of Defense, Les Aspen, Defense Panning Guidance, FY 1995-1999, (Washington D.C., September 1993), 16-17.

<sup>20</sup> Bottom Up Review, October 1993, 30.

<sup>21</sup>United States General Accounting Office, Report to Congressional Committees, Bottom-up Review, Analysis of Key DOD Assumptions, (General Accounting Office, Washington D.C., January 1995), 19.

<sup>22</sup>Ibid., 41.

<sup>23</sup>Secretary of Defense, William Perry, Defense Panning Guidance, FY 1996-2001, (Washington D.C., May 1994), Appendix A.

<sup>24</sup>Larry I. Bland, ed., George C. Marshall: Interviews and Reminiscences for Forrest C. Pogue (Lexington, VA: George C. Marshall Research Foundation, 1991), 441.

<sup>25</sup>National Security Strategy of the United States (NSS) Washington, The White House, July 1994. 7.

<sup>26</sup>Marvin A. Kreidberg and Merton G. Henry, History of Military Mobilization in the United States Army: 1775-1945 (Washington, D.C., US Army Center of Military History, 1989), preface.

<sup>27</sup>Walter Millis, Arms and Men: A Study in American Military History of the United States of America (New York: The Free Press, 1984), 322, 337.

<sup>28</sup>LTC D. E. Hardy, Reconstitution: A Weak Link in U.S. Security, (U.S. Army War College, Carlisle Barracks, PA., 1993), 11.

<sup>29</sup>Walter Millis, Arms and Men: A Study in American Military History of the United States of America (New York: The Free Press, 1984), 237.

<sup>30</sup>John T. Nelsen II, George C. Marshall: Strategic Leadership and the challenges of Reconstituting the Army, 1939-41, (Carlisle Barracks, Strategic Studies Institute, 1993), 1-3.

<sup>31</sup>Walter Millis, Arms and Men: A Study in American Military History of the United States of America (New York: The Free Press, 1984), 288.

<sup>32</sup>Richard M. Swain, "Lucky War": Third Army in Desert Storm, Fort Leavenworth, KS., U.S. Army Command and General Staff College Press, 38, figure 6.

<sup>33</sup>*Ibid.*, 36, figure 5.

<sup>34</sup>*Ibid.*, 40/42.

<sup>35</sup> Secretary of Defense, Les Aspen, Defense Planning Guidance, FY 1995-1999, (Washington D.C., September 1993), 18.

<sup>36</sup>United States General Accounting Office, Report to Congressional Committees, Bottom-up Review. Analysis of Key DOD Assumptions, (General Accounting Office, Washington D.C., January 1995), 19.

<sup>37</sup>United States General Accounting Office, Report to the Honorable G.V. Montgomery, House of Representatives, Army Training, Replacement Brigades were more Proficient than Guard Roundout Brigades, (Washington D.C., November 1992), 1.

<sup>38</sup>*Ibid.*, 2.

<sup>39</sup>*Ibid.*, 5.

<sup>40</sup>*Ibid.*, 5.

<sup>41</sup>*Ibid.*, 16.

<sup>42</sup>*Ibid.*, 25.

<sup>43</sup>Jay Wolfe, "After Drawdown, Army can't Handle Two Contingencies," Army Times, 30.

<sup>44</sup>Barbara Starr, "Reservists Take a Year to Train," Jane's Defense Weekly 17, (14 March 1992), 421.

<sup>45</sup>Secretary of Defense, William Perry, Defense Planning Guidance, FY 1996-2001, (Washington D.C., May 1994), 32.

<sup>46</sup>United States General Accounting Office, Report to the Honorable G.V. Montgomery, House of Representatives, Army Training, Replacement Brigades were more Proficient than Guard Roundout Brigades, (Washington D.C., November 1992), 7.

<sup>47</sup>U.S. Army, FM 100-5, Operations, (Washington, Department of the Army, June 1993), 12-1.

<sup>48</sup>United States General Accounting Office, Report to Congressional Committees, Bottom-up Review, Analysis of Key DOD Assumptions, General Accounting Office, (Washington D.C., January 1995), 7.

<sup>49</sup>United States General Accounting Office, Report to the Secretary of the Army, Force Structure, Army National Guard Divisions Could Augment Wartime Support Capability, (Washington, D.C., March 1995), 3.

<sup>50</sup>United States General Accounting Office, Operation Desert Storm: Army had Difficulty Providing Adequate Active and Reserve Support Forces, (Washington, D.C., March 1992), 92-67.

<sup>51</sup>United States General Accounting Office, Report to the Secretary of the Army, Force Structure, Army National Guard Divisions Could Augment Wartime Support Capability, (Washington, D.C., March 1995), 4.

<sup>52</sup>Ibid., 4.

<sup>53</sup>Ibid., 12.

<sup>54</sup>Ibid., 13.

<sup>55</sup>Ibid., 14.

<sup>56</sup>Thomas F. Lippiatt, Ronald E. Sortor, Patricia K. Dey, Readiness Status of Reserve Component Support Units in Operation Desert Shield, (The RAND Corporation, Santa Monica, CA., September 1991), 14, 15.

<sup>57</sup>*Ibid.*, xi.

<sup>58</sup>John Lund, Ruth Berg, Corinne Replogle, An Assessment of Strategic Airlift Operational Efficiency, (The RAND Corporation, Santa Monica, CA., 1993), xiii.

<sup>59</sup>Bottom Up Review, October 1993, 19-21.

<sup>60</sup>John Lund, Ruth Berg, Corinne Replogle, An Assessment of Strategic Airlift Operational Efficiency, (The RAND Corporation, Santa Monica, CA., 1993), 19-20.

<sup>61</sup>*Ibid.*, 24-25.

<sup>62</sup>*Ibid.*, 30-31.

<sup>63</sup>*Ibid.*, 32.

<sup>64</sup>*Ibid.*, 47

<sup>65</sup>*Ibid.*, 50-57.

<sup>66</sup>Joint Chiefs of Staff, Mobility Requirements Study (U). Volume II, (Washington D.C., June 1993), ES-5. United States General Accounting Office, Report to Congressional Committees, Bottom-up Review. Analysis of Key DOD Assumptions, (General Accounting Office, Washington D.C., January 1995), 25.

<sup>67</sup>Joint Chiefs of Staff, Mobility Requirements Study (U). Volume II, (Washington D.C., June 1993), D-14.

<sup>68</sup>JW "C-17 Shortfall Threatens to Widen Looming US Airlift Gap," *Janes Defense Weekly*, (21 May 1994), 18.

<sup>69</sup>Lewis Sorley, Thunderbolt-From the Battle of the Bulge to Vietnam and Beyond: General Creighton Abrams and the Army of His Times, (New York: Simon and Schuster, 1992): 350.

<sup>70</sup>Walter Laquer, A World of Secrets: The Uses and Limits of Intelligence, (New York: Basic Books, 1985), 260.

<sup>71</sup>LTC D. E. Hardy, Reconstitution: A Weak Link in U.S. Security, (U.S. Army War College, Carlisle Barracks, PA., 1993), 26-27.

<sup>72</sup>United States General Accounting Office, Report to Congressional Committees, Bottom-up Review. Analysis of Key DOD Assumptions, (General Accounting Office, Washington D.C., January 1995), 41.

<sup>73</sup>United States General Accounting Office, Report to Congressional Committees, Bottom-up Review. Analysis of Key DOD Assumptions, (General Accounting Office, Washington D.C., January 1995), 31.

<sup>74</sup>*Ibid.*, 28.

<sup>75</sup>United States General Accounting Office, Report to the Secretary of the Army, Force Structure. Army National Guard Divisions Could Augment Wartime Support Capability, (General Accounting Office, Washington, D.C., March 1995), 6.

<sup>76</sup>*Ibid.*, 3.

<sup>77</sup>Joint Chiefs of Staff, 1992 Joint Military Net Assessment, 12-7.

<sup>78</sup>United States General Accounting Office, Report to Congressional Committees, Bottom-up Review. Analysis of Key DOD Assumptions, (General Accounting Office, Washington D.C., January 1995), 42, 43.

<sup>79</sup>Dick Cheney, Defense Strategy for The 1990s: The Regional Defense Strategy, (N.P., January 1993-Obtained from J5 office, Joint Staff, Washington D.C. March 1993), 1-6.

<sup>80</sup>Department of the Army, Forces/Capabilities Handbook. Volume 1- Organizations, (Carlisle Barracks, PA., U.S. Army War College, 1992-93), 5-1 to 5-35.

<sup>81</sup>LTC John M. Bratton, Contingency Forces in the Year 2020: Optimizing Joint Warfighting, (Carlisle Barracks, PA., U.S. Army War College, 1993), 61.

<sup>82</sup>Dick Cheney, Annual Report to the President and the Congress (Washington: U.S. Government Printing Office, January 1993), ix.

<sup>83</sup>LTC D. E. Hardy, Reconstitution: A Weak Link in U.S. Security, (U.S. Army War College, Carlisle Barracks, PA., 1993), 59.

## BIBLIOGRAPHY

### BOOKS

Bland, Larry I. George C. Marshall: Interviews and Reminiscences for Forrest C. Pogue, George C. Marshall Research Foundation, 1991.

Cooper, Matthew. The German Army, Chelsea: Scarborough House, 1978.

Doughty, Robert A. The Seeds of Disaster, Hamden: The Shoe String Press, 1985.

Horne, Alistair. To Lose a Battle, London: Penguin Books, 1969.

Kennan, George F. American Diplomacy: 1900-1950, Chicago: The University of Chicago Press, 1951.

Laquer, Walter. A World of Secrets: The Uses and Limits of Intelligence, New York: Basic Books, 1985.

Larrabee, Eric. Commander in Chief: Franklin Delano Roosevelt, His Lieutenants and Their War, New York: Harper & Row, 1987.

Millis, Walter. Arms and Men: A Study in American Military History of the United States of America, New York: The Free Press, 1984.

Mobilization and the National Defense. Edited by Hardy L. Merritt and Luther F. Carter. Washington, DC: National Defense University Press, 1985.

Sorley, Lewis. Thunderbolt-From the Battle of the Bulge to Vietnam and Beyond: General Creighton Abrams and the Army of His Times, New York: Simon and Schuster, 1992.

Triandafilov, V. K. Nature of the Operations of Modern Armies, Moscow-Leningrad: State Publishing House (SAMS Reprint), 1929.

Turbiville, G. H., et al. Part I: Final Report. New Approaches to Reconstitution in High Intensity Conflict on the Modern Battlefield. BDM/W-79-800-TR McLean: BDM Corporation, 1982.

Watson, Mark S. Chief of Staff: Prewar Plans and Preparations, Washington, DC: Historical Division, U.S. Army, 1950.

Weigley, Russell F. History of the United States Army, New York: Macmillan Company, 1967.

## GOVERNMENT PUBLICATIONS

Armstrong, Mark H., Maj. Reconstitution: Implications for a Force Projection Army, Master Thesis, Command and General Staff College, Fort Leavenworth, KS., June 1993.

Bennion, Kelly P., Maj. Reconstituting U.S. Brigades and Battalions: The Human Touch, Monograph for the School of Advanced Military Studies, Command and General Staff College, Fort Leavenworth, KS., December, 1991.

Berdy, Andrew R., Col. Reconstitution: Realistic Strategy or Shell Game?, U.S. Army War College, Carlisle Barracks, Pa., 10 March 1993.

Bratton, John M. Contingency Forces in the Year 2020: Optimizing Joint Warfighting, Carlisle Barracks, PA., US Army War College, 1993.

Chairman, Joint Chiefs of Staff. Memorandum of Policy Number 7, Joint Strategic Planning System, issued 30 January 1990.

Cheney, Dick Defense Strategy for The 1990's: The Regional Defense Strategy, Washington, DC., 1993.

Department of Defense. Defense Planning Guidance, FY 1995-1999, Washington DC, September 1993.

Department of Defense. Defense Planning Guidance, FY 1996-2001, Washington DC, May 1994.

Department of Defense. Report of the Secretary of Defense to the President and the Congress, Washington, DC, January 1991.

Department of Defense. Report on the Bottom-Up Review, Washington DC, October 1993.

Department of Defense. DOD Directive 3020.36 Assignment of National Security Emergency Preparedness Responsibilities to DOD Components, Washington, DC, 2 November 1988.

Drea, Dr. Edward J. Unit Reconstitution - A Historical Perspective, Combat Studies Institute, Report Number 3, Fort Leavenworth, KS., 1 December 1983.

Evans, LT COL William J. Graduated Mobilization Response: A National Military Strategy, Industrial College of the Armed Forces, Fort McNair, April 1991.

Goldich, Robert L. Defense Reconstitution: Strategic Context and Implementation, Congressional Research Service, The Library of Congress, Washington, D.C., 20 November 1992.

Graduated Mobilization Response Planning Guidance, Federal Planning Guidance (DPG-2), National Preparedness Directorate / Office of Mobilization Preparedness, Federal Emergency Management Agency (FEMA), Washington, D.C., 24 August 1990.

Hardy, Dennis E., LTC. Reconstitution: A Weak Link in U.S. Security, Individual Study Project, U.S. Army War College, Carlisle Barracks, PA, March 1993.

Heller, Charles E. Economy of Force: A Total Army, The Israeli Defense Force Model, Strategic Studies Institute, U.S. Army War College, Carlisle Barracks, Pa., 20 October 1992.

Joint Chiefs of Staff. Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms, Washington, D.C., Government Printing Office, 1989.

Joint Chiefs of Staff, Mobility Requirements Study (U), Volume II, Washington, DC., Government Printing Office, June 1993.

Joint Chiefs of Staff, 1992 Joint Military Net Assessment, Washington, DC., Government Printing Office, 1992.

Joint Strategic Capabilities Plan (Instructional), Calendar Years 1993-1995 (Secret), Washington, D.C., Joint Chiefs of Staff, 25 August 1992.

Kapstein, Ethan B. Reconstitution: Force Structure and Industrial Strategy, Strategic Studies Institute Special Report, U.S. Army War College, Carlisle Barracks, Pa., June 1992.

Kreidberg, Marvin A., and Merton G. Henry. DA Pamphlet 20-212: History of Military Mobilization in the United States Army 1775-1945, Department of the Army, November 1955, U.S. Government Printing Office.

Lippiatt, Thomas F. and Sortor, Ronald E. and Dey, Patricia K., Readiness Status of Reserve Component Support Units in Operation Desert Shield, The RAND Corporation, September 1991, 14, 15.

Lippiatt, Thomas F. and Sortor, Ronald E. Planning Reserve Mobilization, Inferences from Operation Desert Shield, The RAND Corporation, 1993.

Lund, John and Berg, Ruth and Replogle, Corinne An Assessment of Strategic Airlift Operational Efficiency, The RAND Corporation, 1993.



National Military Strategy of the United States, Washington, D.C., U.S. Government Printing Office, August 1992.

National Security Strategy of the United States, The White House, U.S. Government Printing Office, August 1994.

Nelsen, John T. II. General George C. Marshall: Strategic Leadership and the Challenges of Reconstituting the Army, 1939-41, Strategic Studies Institute, U.S. Army War College, Carlisle Barracks, Pa., February 1993.

Office of the Secretary of Defense, Defense Planning Guidance, Fiscal Years 1994-1999 (Secret), Washington D.C., Government Printing Office, 22 May 1992.

Powell, Colin L. 1992 Joint Military Net Assessment, Washington: Directorate for Force Structure, Resources, and Assessment (J8), 1992.

Report to Congress on the Defense Industrial Base, Under Secretary of Defense (Acquisition), Assistant Secretary of Defense (Production and Logistics), Department of Defense, Washington, D.C., November 1991.

Swain, Richard W., "Lucky War", Fort Leavenworth, KS, U.S. Command and General Staff College Press, 1995.

Tomlinson, M. T., Jr., Industrial Mobilization and the National Defense: How Ready Are We?, Carlisle Barracks, Pa: US Army War College, 1986.

Vanoekel, LCDR Hans J. Reorganization of the Ready Reserve Force - A Necessity to Implement the JCS Graduated Mobilization Response as Set Forth in the National Security Military Strategy for the 1990s, Naval War College, Newport, RI., 13 November 1991.

United States General Accounting Office, Army Training, Replacement Brigades Were More Proficient Than Guard Roundout Brigades, Washington DC, General Accounting Office, November 1992.

United States General Accounting Office, Force Structure, Army National Guard Divisions Could Augment Wartime Support Capability, Washington, DC, General Accounting Office, March 1995.

United States General Accounting Office, Operation Desert Storm: Army had Difficulty Providing Adequate Active and Reserve Support Forces, Washington, DC, General Accounting Office, March 1992.

United States General Accounting Office, Report to Congressional Committees, Bottom-Up

Review, Analysis of Key DOD Assumptions, Washington DC, General Accounting Office, January 1995.

### ARTICLES

Brinkerhoff, John R. "Reconstitution: A Critical Pillar if the New National Security Strategy," Strategic Review Vol 19 No 4 (Fall 1991): 9-22.

Burk, James. "The Decline of Mass Armed Forces and Compulsory Military Service," Defense Analysis Vol 8 No 1 (April 1992): 45-59.

Center for Army Lessons Learned, US Army Training Activity. "Reconstitution," Bulletin 1-87 (April 1987): 14-17.

Connor, Arthur W., Jr. "The Armor Debacle in Korea, 1950: Implications for Today," Parameters Vol 22 No 2 (Summer 1992): 66-76.

Correll, John T. "A Hole in the Strategy," Air Force Magazine 74 (July 1991): 7.

Elam, Maj Gen Fred E., and LTC Mark Henderson. "The Army's Strategic Mobility Plan," Army Logistician (May - June 1992): 2-6.

Hall, Robert, and Kemp, Ian "North Korea, A Potential Time Bomb," Jane's Intelligence Review, Special Report No. 2, Jane's Information Group, 16-21.

Horner, Charles W. "Reconstituting a Combat Force," Army Logistician 18-4 (Summer 1986): 2-5.

Marsh, Curtis N. III. "Reconstitution," Military Review 47-1 (January 1987): 56-61.

Miskel, James F. "Vulnerabilities in our ... Defense Industrial Base," Aerospace & Defense Science Vol 9 No 11 (November/December 1990): 15-17.

Powell, Cloin L. "Building the Base Force," Defense Issues Vol 7 No 5 (92): 1-8.

Putsay, John S., and Leonard Sullivan, Jr. "Preserving a Strong U.S. Mobilization Capability," National Defense Vol LXXV No 466 (March 1991): 19-21.

Starr, Barbara. "Reservists 'Take a Year to Train'," Jane's Defense Weekly Vol 17 No 11 (14 March 1992): 421.

Summers, Harry G., Jr. "Military Doctrine: Blueprint for Force Planning," Strategic Review Vol 20 No 2 (Spring 1992): 9-22.

Tangredi, Sam J. "Reconstitution is the New Game, " U.S. Naval Institute Proceedings Vol 117 No 9 (September 1991): 58-61.

Wolfe, Jay "After Drawdown, Army can't Handle Two Contingencies," Army Times, 1992, 30.

### **OTHER PUBLICATIONS AND GOVERNMENT DOCUMENTS**

Army Regulations 500-5, The Army Mobilization and Operations Planning System (AMOPS), Washington D.C., Department of the Army, 1991.

Department of the Army, Forces/Capabilities Handbook, Volume 1-Organizations, Carlisle Barracks, PA., US Army War College, 1993.

Elliott, William Y. Mobilization Planning and the National Security, Washington, DC: The Library of Congress Legislative Reference Service, April 1950.

Field Manual 100-5, Operations, Washington DC: Department of the Army, 14 June 1993.

Field Manual 100-9, Reconstitution, Washington DC: Department of the Army, 13 January 1992.

Field Manual 100-17, Mobilization, Deployment, Redeployment, Demobilization, Washington, DC: Department of the Army, 28 October 1992.

Forces Command. FORSCOM Regulation 500-3-1, FORSCOM Mobilization Plan, Fort McPherson, Ga, 1 August 1991.

Graduated Mobilization Response for the Department of Defense: Concepts, Responsibilities, and Options, Alexandria, Va: Institute for Defense Analysis, Volumes I, II, August 1991.

Merritt, Gen Jack N. Statement Before the Panel of the U.S. Defense Industrial Base, U.S. House of Representatives Armed Services Committee, Association of the United States Army, Arlington, Va., 19 February 1992.

Taibl, Paul E. Graduated Mobilization Response: A Key Element of National Deterrent Strategy, Washington, DC: Institute for National Strategic Studies, National Defense University, April 1988.

The Army Plan, Fiscal Years 1994-2009 (Secret), Washington DC: Department of the Army, 10 October 1991.

Title 10, United States Code, Armed Forces of the United States, Washington D.C.

Title 44, United States Code, Graduated Mobilization Response, Part 334, Washington, D.C., January 1990.

United States Army Posture Statement FY94, Washington, DC: U.S. Government Printing Office, 1993.

### **SPEECHES AND INTERVIEWS**

Bush, President George, Speech before the Aspen Institute, Aspen, Colorado, 2 August 1990.